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### **European and world traditions of studying giftedness**

To understand genius and extraordinary individuals has been a fascination worldwide throughout history, but it is probably fair to say that with modern definitions of science and research the pursuit of systematic study in order to understand gifted individuals started with American psychologist Lewis Terman's research project "Genetic studies of genius". He followed a group of 1500 individuals, all identified as having a high IQ, from the beginning of the 1920s and over 35 years to see how they developed individually and how they fit into society as a whole. That which sparked a systematic effort in promoting gifted individuals in education, coining the now internationally used term "gifted education", was the so-called Space Race between the United States and the Soviet Union of the 1960s. American politicians blamed their education system for America failing to reach space ahead of the Soviet Union. It took, however, several decades before Gifted education had materialized in the US and from around the 1970s an educational interest for identifying and supporting particularly gifted individuals in school also started spreading globally.

In Europe, British psychologist Joan Freeman launched a research project similar to that of Lewis Terman, but did so half a century later. In Germany Kurt Heller at Munich University and in the Netherlands Franz Mönks at what is now Radboud University at Nijmegen also launched specific research into giftedness and Gifted Education. By 1987 the leading researchers and educators of Europe with a fervent interest in these questions founded the European Council for High Ability (ECHA) to research, to inform and to counsel parents, teachers and policy-makers in matters of giftedness and education.

In 1994 ECHA was recognized by the European Council at Strasbourg as an advisory body to the Council. The European Council took a stand on the issue and recommended that all European legislation in education should cater to the special needs of the gifted and talented. Furthermore, in 2011 the European Union, under the Hungarian Presidency, launched the Talent Support Project aiming at finding, training and supporting talented young people of Europe specifically to secure the increasing needs for future science and innovation.

This development is of course not limited to North America and Europe. Australia, Singapore, Hong Kong, Taiwan, Mainland China, South Korea are all taking Gifted Education

very seriously. There exist also the World Council for Gifted and Talented Children (WCGTC), which has a more global scope than ECHA and is currently based in the US. According to one source 19% of the world's nations are currently focusing on Gifted Education in some form.

### **On definitions of giftedness**

The lack of consensus among the members of the world's scientific community in defining giftedness is a continuous problem. Perhaps the definition of giftedness that is currently the most practical one is the way that the Market and industry understand giftedness. They prefer to speak of "Talent" and have never really expressed an interest in the individual determinants that produce talent, creativity or high achievement. They assess the degree of talent; that is, how attractive someone is to the market, by their past achievements entirely. In other words, he or she who has successfully amassed a fortune for a corporation is "talented" while others who have not are "not talented". Needless to say, this pragmatic view of understanding giftedness is very problematic. Not knowing what actually causes an individual to be highly creative, productive, intelligent and so on also means it is impossible to control in terms of securing continued support and in-put by talented individuals. A disaster scenario for a company would be to hire someone considered extremely talented and then assign this individual to work conditions and environments that are detrimental to creative work and innovation thereby effectively removing that which was needed in order to improve the company.

However, most researchers would agree that IQ-measures and various creativity measures are often good indicators of intellectual giftedness and these are consistently used to select individuals for gifted education programmes as part of normal schools or, and this is more unusual, special schools for gifted and talented children.

The research community tends also to agree that giftedness is *domain specific*; it is different to be gifted in say ice hockey than it is to be in musical performance, and this is again different than to be gifted in science or finance. This means that there are different genetic, psychological and social factors that determine high achievement and creativity in each of these domains. Hence, being "gifted" has different causes and expressions in different domains.

There is a rift in the scientific community, however. A vast majority of researchers will argue that giftedness, irrespective of domain and type, is largely normally distributed; that is, in any population there will only exist a small percentage of individuals who are and can be gifted. But, a small number of mainly American researchers argue that anyone can be gifted if they practice or train hard enough, during a period of at least 10 years, and receive optimal socio-emotional support and instruction. Their view is that giftedness is for everyone given that the educational system is structured to facilitate this and that pupils are prepared to work hard for it.

The latter notion of giftedness for all, in comparison to overwhelming evidence of how great a role genetics plays, is highly controversial to most scientists and its arguments must in all likelihood be seen as a result of American culture and ideology rather than the result of science. Such ideas are typically expressing "The American Dream"; the essence of which is that everything is possible for anyone for as long as they work hard enough. While hard training and practice can take you far in any type of skill, it does not magically make everything possible for everybody! So, true giftedness, with everything that this entails, is

almost certainly normally distributed or at the very least, an attribute of a limited number of individuals in any population. It should be noted that also the Market and industry are in agreement that talent is scarce and hard to find. Apparently there is no general formula by which every employer could be made into someone extraordinary!

### **The education of gifted children**

There really are no specialized educational models for gifted education, the assumption being that there is no particular pedagogy needed for gifted children. Non-gifted children and gifted children in school may certainly be dealt with structurally in much the same way. Differences in instruction rather have to do with pace and depth. That is, gifted children learn quicker and more effectively and should therefore be allowed to complete their studies earlier, or they should be provided with a more advanced curriculum which in addition to providing them the basics of schooling also continues to challenge their desire for learning and understanding. The intention is that they are simply allowed to, in a meaningful way, learn much more than their non-gifted contemporaries.

#### *Systemic approaches to gifted education*

The most prominent solution how to implement gifted education worldwide is by *inclusion* and *integration* into already existing regular and national school systems. The idea is that gifted children should not be separated from their social context. They should exist in the same environments as every other child in school. However, that is not to say that the gifted children should share all teaching with other non-gifted children. Different countries have solved this in different ways. Sometimes children are taught in the same school or classrooms but are taught certain subjects separated from other pupils and together with other gifted children for a certain number of hours each week.. Most of the time, however, the gifted children will go to school and in the same classes together with their non-gifted friends. In some school systems schools and curricula are unchanged but gifted children are offered extra-curricular activities suitable to their interests instead. They study after school or during summer holidays, occasionally in specially planned summer camps. It is also common, especially in Eastern and Central Europe to argue that competing in music, science or mathematics is an appropriate way of satisfying gifted children's need for stimulation and development.

It is relatively uncommon to have special schools for gifted children in an international perspective. The only country perhaps, that has a tradition in preferring special schools for a variety of subjects and abilities, is Russia. There are special schools for the gifted also in the United States, Germany, Switzerland and Austria, but these are exceptions rather than the rule. Generally gifted education is integrated into normal school systems and is inclusive.

Who has the right to gifted education no matter in what format it is available? This has been a difficult question for all policy-makers all over the world. To single out children who apparently learn more quickly, know much more and often have far-reaching ambitions in life already when children, and argue that they need "special support" in school has been controversial in many school systems. More so in egalitarian cultures than in others. The Scandinavian countries for example, until quite recently, viewed particular support for such children in education as being "unfair" and "undemocratic".

The same sentiments, but far from as intense, have been voiced in most of Europe and occasionally also in North America. However, many years of research has clearly shown

that gifted children do not fare well in an educational system that has no knowledge of them and that do not particularly cater to them. It is a myth that gifted children “manage on their own” in school and that they need much less support than others because they are gifted. In fact, the opposite is very often true. Because these children are intellectually different it is often more difficult for them to relate socially to everyone else in the social context and therefore frequently become misunderstood and overlooked. It is also not uncommon that teachers view children who know more than they do in certain subjects as a threat. Therefore, it is often true that gifted children in a regular school system are quite vulnerable unless they are recognized and supported.

It should be noted though that researchers in gifted education tend to agree that while school formats and organizational structures are less important as long as gifted children’s needs are met, it is very important that teachers are specially trained in dealing with gifted children. They need to know what giftedness is and how it affects children’s way of being, thinking and behaving. Interestingly though, while the interest for gifted education is spreading globally, it is still quite rare to find teacher training for gifted education!

#### *Gifted education in egalitarian systems*

Only in the last few years, in the wake of an increasingly intense global economy, high achievement has been emphasized increasingly and has been pointed out as imperative for continued world development towards welfare and social security, the interest in giftedness has also increased in equal proportion. It is my observation, however, that especially egalitarian cultures choose to speak of talent rather than giftedness. Policy-makers are torn between what science has to say about giftedness and how industry views talent. Everyone recognizes the need for innovative, creative, high-achieving individuals in production, but it is politically impossible to say that such human capital is limited to only a small group in society, no matter how scientifically true this may be.

Egalitarian systems, now recognizing the needs of supporting gifted pupils in one way or another, seem to solve the apparent paradox of focusing on individuals in a collective system, but providing some stimulation for such individuals within the school system, but at the same time never to speak of these pupils as “gifted”. They are “like everyone else, only that they do so much more”. The notion of talent is used instead, or in the Swedish school system since 2010, these children are spoken of as “children who like to be challenged” and they have the opportunity to apply for advanced placement in what roughly translates as “top achievement education”. Perhaps ignoring to train teachers specifically for such top achievement education is also a way of trying to maintain the political illusion that the egalitarian ethos is maintained in spite of wanting to train an elite of high achieving young people.

The Finnish success in education, as expressed by being consistently top-ranked in various international comparisons has been explained by Paasi Sahlberg, Director General at the Finnish Ministry of Education and Culture, as one that – contrary to most other Western national school systems – has limited the influence of the Market and economic models and their demands of quality-controlled accountability in education. Instead, Finnish policy-makers have allowed their education system to keep its integrity and control itself according to only a few guidelines and centrally provided targets. While in other countries quality controls have increased, their results in international comparisons have usually decreased too and teachers as a professional group are as a rule increasingly held accountable for decreasing quality. This in turn leads to stress and alienation amongst

teachers. In Finland the opposite is true: quality controls are minimal if any, the results of Finnish pupils rank amongst the best of all countries and teachers are held in high regard.

I think it important in general that educational systems should reflect the cultural values of their country. I don't think that even a system of special schools for the gifted is necessarily a problem given that efforts are also made to keep these children an active part of society. Children, no matter who they are, need to feel that they belong to normal society. They will eventually have to work and function in it, so to keep them apart from it for years, is anything but wise.

So, the compromise accepted by policy-makers is to argue that everyone has the potential for giftedness by preferring the term talent and to make it the task of education systems to produce a multitude of high-achieving talent. Only the future will tell how such a doubtful policy compromise will actually function! My guess is there will be problems ahead.

#### *Balance between the special needs of slow and gifted learners*

It is not correct to argue that gifted children have no needs nor that they deserve less attention just because they are quick learners and knowledgeable individuals. As so many years of research has shown, they have problems too, but these are problems different from pupils who more generally are the focus of special educators: pupils with reading and writing difficulties or with a variety of conditions and situations that prompt them to perform poorly at school. Gifted children, unless helped and supported, suffer from boredom and often social exclusion. Teachers ignore them because they must help other children whom they perceive as being "more in need;" they sometimes feel threatened by them because these children know more than they do about certain things, or teachers run on an ideology which forces them to discount gifted children because they are viewed as "privileged". I have sadly seen all of these at work in different classrooms. The result is that a vast majority of gifted children in such schools suffer tremendously for as long they have to be in school. Some gifted children, according to my own research, are so unhappy in school that they at an age of no more than 10 already have considered suicide as the only way out of their misery!

In the light of what we now know of gifted children by research I cannot see how it can ever be seen as "unfair" to give them an equal legal and moral right to support and recognition in any school system anywhere in the world.

#### *Gender differences of giftedness*

There are no crucial differences between boys and girls in terms of how they are gifted and in their choice of fields and pursuits, but there are documented differences in the social pressure that boys and girls experience from their contemporary peers as they grow up. Culture-bound expectations on how boys and girls should behave; what they should do according to cultural norms, will also effect how difficult or easy it is for each sex to reach their desired goal if different from the social norm. In societies where sex roles are rigid it is quite difficult for example for a gifted female to receive the respect she deserves in business since business often is considered to be a "man's world." And of course vice versa: a gifted male educator wanting to work with young children might find it difficult to be taken seriously because he is working in an environment which traditionally tends to be dominated by women.

### **About national policies or official recognition of giftedness**

Official recognition and support are key to systematically cater to **gifted** individuals in any national school system. Teachers need to be informed of and trained in gifted education and there must exist a central policy on how to support gifted children in schools and schools must in turn become skilled in how best to implement such support.

It should be noted that lack of policy and preparedness to accommodate gifted individuals is not unique to many a school system worldwide. The same goes for business and industry! They rarely know how to deal with gifted employees either, and while these individuals could almost always be a tremendous asset to any company or organization, employers tend to be suspicious of individuals who deviate too much from what they expect how an average employee should behave and so they either do not hire someone gifted, fire them or give them inappropriate work assignments just to keep them out of the way. Either way, the employer is doing himself or herself a disfavor without realizing it, because the gifted individual is very likely to be exactly what the company or organization needs in terms of either producing new ideas or products or to solve existing problems.

It is known that highly creative individuals rarely perform well at recruitment interviews. So, industry also needs to be informed of who the gifted are and how they function. It is not a problem limited to education!

### **Common “misunderstandings” of giftedness**

American psychologist Ellen Winner has addressed this question and lists a few common myths about giftedness, for example,

a) To be “gifted” does not mean that you are very good at everything. Just like with everyone else you are not as accomplished in some things but do better in others.

b) To be “gifted” does not always mean that an individual has an extreme IQ. Giftedness always relates to an individual’s level of ability in one or several domains, but not all domains of behaviour are intellectual. The correlation between musical skills and IQ for example is quite weak. There certainly are musicians who also are academically skilled, but it is more common that musicians are extreme in their field of pursuit but not as skilled in the academic realm.

c) Giftedness is NOT something you are entirely born with nor is it something that is entirely created by a social environment. Giftedness is by necessity BOTH. A genetic potential for high performance in say certain sports will never see the light of day unless that individual also gets the opportunity to pursue sports and is encouraged to do so and remains supported. It is also true that someone who receives encouragement and support for a certain pursuit but has little genetic potential for it cannot possibly develop to expected high levels. As geneticists would phrase is: such individuals have relevant genes with a limited reaction range.

d) One important myth, which has caused gifted children much pain over the years, is the fact that society often sees giftedness as a type of social privilege. The very opposite is all too often true: to be gifted is to be different than most others, and to be too different also means being subject to suspicion and ridicule. In fact, some researchers, including myself, who have taken a closer look at what it means to be gifted in society, often speak of giftedness as a curse. Clinical depression amongst gifted individuals, especially intellectually gifted ones, is very common and they are often not allowed access to the social world of relations and associations taken for granted by most others in society.

e) Another myth is, as I mentioned also before, is that all children are gifted. This is only wishful thinking and scientifically speaking grossly incorrect. In every population only a small percentage can be regarded correctly as gifted.

f) It is also often assumed that once identified as gifted and perhaps given appropriate educational support, it is also certain that such an individual will become a “success” in society no matter what they set their mind to do. Sadly this is also not true. No matter how gifted an individual is, he or she always needs *permission* to implement his or her skills and insights. If a teacher, a parent, an employer or policy-makers, somehow find gifted behaviours unfair or as a type of threat, they will always discourage giftedness by attitude and reprimand - or perhaps even by policy. In my view, it is more rule than exception that at least gifted intellectuals rarely reach any kind of public prominence, for said reason. It is much easier for a gifted musician, artist or writer to gain prominence since their ultimate aim is to entertain rather than to criticize and possibly change society by solving the variety of problems that modern society has.

### **The role of gifted children in a society**

Gifted individuals can only have the function in society that we allow them to have. To have Nobel Prize-winning solutions to societal problems does not mean that such solutions will be accepted by policy-makers and implemented. It is all too true that scientific truths are sometimes politically inconvenient and therefore ignored or denounced officially. This is true globally. Similarly, gifted individuals, who tend to be very altruistic and eager to use their insights and knowledge to support and help the world in which they live, are not always welcome to do so and implement their knowledge and their solutions because they are seen as inconvenient. At times they are so brilliant that if seen in public in association with political authority they may sometimes make political leaders look less brilliant, which in a worldwide perspective, is rarely welcomed anywhere at any level of society.